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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/536,943  
Filing Date: October 17, 2005  
Appellant(s): MCCORMACK, ANTHONY DENIS

\_\_\_\_\_  
Terryence F. Chapman  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 11/30/2009 appealing from the Office action mailed 3/23/2009.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

6789548	Bereman	9-2004
WO 0237990	Bereman	5-2002
3108142	Baur et al.	10-1963

5829449                                      Hershe et al.                                      11-1998

Garrido et al. "The Effect of Gasification by Air or CO<sub>2</sub> in the Development of Microporosity in Activated Carbons" J.Chem.Soc., Faraday Trans. 1, 1987, 83, 1081-11088

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 6-10 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bereman (WO 0237990) in view of Garrido et al. (J.Chem.Soc., Faraday Trans. 1, 1987).

Regarding claims 1-3, 5-10 and 15, Bereman discloses a tobacco smoke filter containing activated carbon where the smoke compounds in the organic volatile and semivolatile phases diffuse through the carbon particles, move over the surface and the move into the activated carbon pores compelled by a phenomenon known as Van der Waal's forces. Activated carbon can have micropore (pores of less than 2 nm in diameter) mesoporous (pores 2 to 50 nanometers in diameter) (overlapping with the range of claim 2) (page 21, line 15 to page 22, line 7). Also, it is noticed that the claimed "at most" in the instant claim 1 is inclusive of zero. However, Bereman does not disclose

the volume of these pores. Garrido discloses the tailoring of the porosity of activated carbons for use in different types of applications (page 1081). Garrido discloses burn-off to control the pore volume (fig. 2); Garrido further disclosed the volumes measured by adsorption of nitrogen in carbons can be explained in terms of corresponding DR plots (page 1085). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the burn off method disclosed by Garrido to manipulate the pore volume (to any desired range of volumes as fig. 2 of page 1085 and page 1081) of the activated carbon pores of Bereman to achieve a desired adsorption property.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bereman (WO 0237990) in view of Garrido et al. (J.Chem.Soc., Faraday Trans. 1, 1987) as applied to claim 1 above and further in view of Baur et al. (U.S Patent No. 3108142). Garrido discloses the tailoring of the porosity of activated carbons for use in different types of applications (page 1081 of Garrido wherein Garrido stated the use of an activated carbon in a given process is conditioned by its adsorptive properties, which are basically a function of the porous structure. Even though the combination of Bereman and Garrido does not disclose the surface property of macropores activated carbon, this property is well known in the art as evidence by Baur. Baur discloses macroporous activated carbon has surface area of about 1 to 8 m<sup>2</sup>/g overlapping with the claimed (5 m<sup>2</sup>/g).

Claims 11-14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bereman (WO 0237990) in view of Garrido et al. (J.Chem.Soc., Faraday Trans. 1,

1987) as applied to claim 1 above and further in view of Hershe et al. (U.S Patent No. 5829449). Bereman discloses using a filter containing activated carbon on a cigarette to reduce the content of certain harmful or carcinogenic substances. However the combination of Bereman and Garrido does not disclose putting volatile flavourant in a filter cigarette. Furthermore, Hersh discloses cigarette filter comprising menthol and other smoke flavoring agents wherein the activated carbon has pore modifying agent and part of the activated carbon is available for adsorption of the menthol or other flavor (column 8, lines 25-31). Therefore, it is well known in the art to put menthol flavor in the filter as evidenced by Hersh (column 12, lines 9-13). Therefore, it would have been obvious to add a menthol flavor to the filter of Bereman to give user the flavor.

#### **(10) Response to Argument**

Applicant essentially argues that Applicant disagrees that the presented claim 1 with the phrase: "a micropore volume provided by micropores of under 2nm pore diameter of at most 0.3 cubic cm/g" reads on a zero micropore volume. As indicated in the Office Action filed 3/23/2009 and 8/11/2009, the phrase of at most 0.3 cubic cm/g claims volume from zero inclusively to 0.3 cubic cm/g and Application has not established the support in the present application's specification for the lower limit of such claim. Applicant relies on the cited prior art of Garrido to support the position that it is inherent that activated carbon will have some micropores and mesopores and therefore have volumes associated therewith. However, this argument only shows that the cited prior art of Garrido teaches activated carbon with micropores and mesopores with associated volume but does not show the support for the claim of 0 (inclusive) to

0.3 cubic cm/g. If Applicant is arguing that activated carbon of Bereman which contains mesopores would also contain minor amount of micropores, then this would suggest a low level of micropores, so as to read on applicants amount of at most 0.3 cubic cm/g.

Furthermore, Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Whether claims 1-3, 6-10 and 15 are unpatentable under 35 USC 103(a) over Bereman in view of Garrido et al.

Applicant essentially argues In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, as indicated in Office Action filed 3/23/2009, the reference of Bereman and Garrido taken together as a whole, teaches smoke filter containing activated carbon and activated carbon has micropores, mesopores and macropores. Although Bereman does not expressly disclose the volume of these pores, Garrido discloses the tailoring of the porosity of activated carbons for use in different types of applications (page 1081 of Garrido wherein Garrido stated the use of an activated carbon in a given process is

conditioned by its adsorptive properties, which are basically a function of the porous structure; therefore the tailoring of the porosity of activated carbons for use in different types of applications by modifying their porous structure) therefore, it would have been obvious to one of ordinary skill in the art to modify the pore structures of Bereman to any desired range to achieve a desired adsorption property as suggested by Garrido.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., both a satisfactory level of absorption of flavourant, releases sufficient flavourant to deliver a satisfactory taste and shows a good absorption and shows a good absorption of vapor phase components from tobacco smoke when used in smoke filtration) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Furthermore, it is notice that the terms "satisfactory", "good absorption" are all subjective terms that are highly user dependent.

Applicant further presented the comparative results on pages 5-9 of the specification, however these results are not commensurate in scope with what is being claimed. For example the tested mesopore volume in Table E shows a jump from 0.09 to 0.25, this is clearly insufficient to render "at least 0.25" non-obvious.

Whether claim 4 is unpatentable under 35 USC 103(a) over Bereman in view of Garrido et al. and further in view of Baur et al.



Applicant essentially argues that nothing in the reference of Baur suggests a combination with Garrido and Bereman. However, as explained above, the reference of Baur is presented as evidence that a typical macroporous activated carbon having a surface area from about 1-8 m<sup>2</sup>/g overlapping with the claimed surface area range. Therefore, it would have been obvious to one of ordinary skill in the art to pick the claimed surface area and the combination of Bereman, Garrido and Baur taken together as a whole suggests the claimed surface area of macroporous activated carbon.

Whether claims 11-14 and 16 are unpatentable under 35 USC 103(a) over Bereman in view of Garrido et al. and further in view of Hershe.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the intended use features upon which applicant relies (i.e., an activated carbon contained in a filter used in filtering tobacco smoke could both absorb vapor phase components containing tobacco smoke and still adequately release a flavourant if they possessed the claimed porosity) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant essentially argues that the presently claimed invention is patentably distinguishable over Hershe et al. in combination with Garrido et al. and Bereman. However, as explained above, the combination of Hershe, Garrido and Bereman taken together as a whole suggests the application of flavourant to activated carbon to provide flavor to a user.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Phu Nguyen/

2/25/2010

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